

REMARKS

Applicants request reconsideration of the present application in view of this response. Claims 1-34 are currently pending. Claims 1, 13 and 28 are independent claims.

PRIORITY DOCUMENTS

Applicants appreciate the Examiner's acknowledgment of Applicants' claim for priority under 35 U.S.C. §119 and the indication that all necessary priority documents have been received.

INFORMATION DISCLOSURE STATEMENT

Applicants appreciate the Examiner's consideration of all references listed on the Form PTO-1449.

DRAWINGS

Applicants appreciate the Examiner's acceptance of the drawings filed September 23, 2003.

PRIOR ART REJECTIONS

Rejection under 35 U.S.C. §103(a)

Claims 1, 2, 4, 5, 7-9, 12, 13, 15, 17, 20, 26, 28, 29, 31, 32 and 34 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Yoshida

et al. (U.S. Patent No. 5,506,409, hereinafter referred to as "Yoshida") in view of Sariciftci et al. (U.S. Patent No. 5,454,880, hereinafter referred to as "Sariciftci"). Applicants traverse this rejection.

On page 2 of the Office Action, the Examiner correctly recognizes that Yoshida fails to teach or suggest an X-ray detector for a CT device including at least a photo detector layer including "organic material," as set forth in claim 1. The Examiner relies upon Sariciftci to allegedly teach this feature. Applicant disagrees.

In re Dembiczak, 175 F.3d. 994 (Fed. Cir. 1999) set forth rigorous requirements for establishing a *prima facie* case of obviousness under 35 U.S.C. §103(a). According to *Dembiczak*, in combining references under 35 U.S.C. §103(a), the Examiner must show evidence of some suggestion teaching or motivation to combine prior art references to avoid "hindsight-based obviousness analysis" *Id.* at 999. This evidence may flow from (1) the prior art references themselves, (2) the knowledge of one of ordinary skill in the art at the time the invention was made, or (3) from the nature of the problem to be solved. *Id.*

In re Kotzab, 217 F.3d 1365 (Fed. Cir. 2000) further elaborated on the requirements established by the *Dembiczak* court. For example, in *Kotzab*, the court stated,

[While] the test for establishing an implicit teaching, motivation, or suggestion is what [a combination of two statements from the prior art] would have suggested to those of ordinary skill in the art, the two statements cannot be viewed in the abstract. Rather, they must be considered in the context of the teaching of the entire

reference. Further, a rejection cannot be predicated on the mere identification in [the prior art] of individual components of claimed limitations. Rather, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed. *Kotzab*, 217 F.3d at 1371. Emphasis added.

According to *Kotzab*, elements found in prior art references cannot be considered in a "vacuum." Instead, they must be considered in conjunction with all other teachings in the respective prior art reference from which the teachings flow. That is, in determining obviousness, one must take into account the context of the prior art patent or reference as a whole.

Moreover, identification of specific elements or "individual components," (*Id.*) in the prior art references cannot be used in a proper obviousness rejection under 35 U.S.C. § 103(a).

In the present case, supporting the combination of Yoshida and Sariciftci, the Examiner states that "[the] use of organic materials [in a photo detector layer] provides 'significant cost advantages' as well as 'excellent mechanical properties' (col. 2, ll. 6-19)." See page 2 of the Office Action. It appears that the Examiner contends the references (i.e., Yoshida and Sariciftci) are combinable because of the "significant cost advantages," and "excellent mechanical properties," allegedly provided by organic materials. Applicants disagree.

Sariciftci states that organic photodiodes may be cost effective and have "excellent mechanical properties." However, as noted by the *Kotzab* court, these conclusions in Sariciftci must be taken in context of the entire Sariciftci

teaching. Sariciftci is clearly and explicitly directed to photovoltaic or solar cells, not X-ray detection and/or CT scanning. Thus, the determination of cost effectiveness and the extent of the mechanical properties are all relative to existing and well-known costs and properties associated with photovoltaic or solar cells. Sariciftci does not suggest the possibility of using his organic photodetectors in X-ray detectors, nor the possibility that the use of photodetectors including organic material would provide the same advantages in X-ray detecting or CT scanning.

It is clear that Yoshida and Sariciftci are directed to two completely different technologies (i.e., X-ray detectors and photovoltaic cells). As such, the only manner in which the skilled artisan would even consider looking to Sariciftci for the deficiencies of Yoshida would be in view of the present application. **This is the essence of hindsight reasoning**. That is, the Examiner has located a prior art reference disclosing a radiation detector, device, and then searched the prior art for the missing features, without identifying any teaching, suggestion or motivation, which would lead the skilled artisan to Sariciftci to arrive at the claimed invention.

In summation, the Examiner's hindsight based reasoning for combining Yoshida and Sariciftci is improper. Furthermore, the broad, general conclusion that organic materials may be cost effective and may have excellent mechanical properties in photovoltaic or solar cells is not sufficient evidence to establish the requisite motivation for incorporating the photodetector of Sariciftci into the radiation detector of Yoshida.

Limitations of Claim 1 are Lacking

For at least the reasons set forth above, Applicants submit that the Examiner's alleged combination under 35 U.S.C. § 103(a) is improper and the rejection should be withdrawn. However, even assuming *arguendo* that Yoshida could be combined with Sariciftci, the alleged combination would still fail to teach all of the features set forth in claim 1.

Sariciftci discloses a PN heterojunction diode fabricated using semiconducting polymers as a donor layer and fullerenes as an acceptor layer. These diodes are useful as or in photovoltaic cells.

By contrast, the invention of Yoshida is directed to a radiation detecting device and method of manufacturing. In Fig. 1 of Yoshida, a scintillator 1 is formed on the surface of the photoelectric converter 10. An adhesive layer 9 is interposed there between bonding the two together. As correctly recognized by the Examiner, however, the photoelectric converter 10 is comprised of inorganic material.

While Yoshida arguably discloses a radiation detector and Sariciftci arguably teaches organic photodetectors, the references, either alone or in combination, do not teach an X-ray detector for a CT device including a phosphor layer and a photodetector layer including "organic material," as in claim 1.

Accordingly, the alleged combination of Yoshida and Sariciftci still fails to teach all of the features of claim 1.

For at least reasons somewhat similar to those set forth above, Applicants submit that claims 13 and 28 are allowable over the prior art of record. Claims 2, 4, 5, 7-9, 12, 15, 17, 20, 26, 29, 31, 32 and 34 are allowable for at reasons set forth above with regard to claims 1, 13 and 28.

Applicants respectfully request withdrawal of this rejection.

Rejection under 35 U.S.C. §103(a)

Claims 3, 16, 18, 19, 24 and 30 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Yoshida in view of Sariciftci and further in view of Feygin (U.S. Patent Publication No. 2002/0182111, hereinafter referred to as "Feygin"). Applicants traverse this rejection.

As discussed above, Applicants submit that the Examiner's alleged combination of Yoshida and Sariciftci is improper. In addition, even assuming *arguendo* that Yoshida and Sariciftci could be combined; the alleged combination is still deficient with regard to claims 1, 13 or 28.

On page 5 of the Office Action, the Examiner correctly recognizes that Yoshida in view of Sariciftci fails to teach or suggest any or all of the features set forth in claims 3, 16, 18, 19, 24 and 30. The Examiner relies upon Feygin to allegedly teach these features.

However, even assuming *arguendo* that Yoshida, Sariciftci and/or Feygin could be combined (which Applicants do not admit for at least reasons somewhat similar to those set forth above), the alleged combination of Yoshida,

Sariciftci and/or Feygin is still deficient with regard to claims 1 or 28. Thus, claims 3, 16, 18, 19, 24 and 30 are in condition for allowance.

Rejection under 35 U.S.C. §103(a)

Claims 6, 21 and 33 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Yoshida in view of Sariciftci and further in view of Tyan (U.S. Patent No. 6,693,296, hereinafter referred to as "Tyan"). Applicants traverse this rejection.

As discussed above, Applicants submit that the Examiner's alleged combination of Yoshida and Sariciftci is improper. In addition, even assuming *arguendo* that Yoshida and Sariciftci could be combined; the alleged combination is still deficient with regard to claims 1, 13 or 28.

On page 6 of the Office Action, the Examiner correctly recognizes that Yoshida in view of Sariciftci fails to teach or suggest any or all of the features set forth in claims 6, 21 and 33. The Examiner relies upon Tyan to allegedly teach these features.

However, even assuming *arguendo* that Yoshida, Sariciftci and/or Tyan could be combined (which Applicants do not admit for at least reasons somewhat similar to those set forth above), the alleged combination of Yoshida, Sariciftci and/or Tyan is still deficient with regard to claims 1 and 28. Thus, claims 6, 21 and 33 are in condition for allowance.

Rejection under 35 U.S.C. §103(a)

Claims 10 and 11 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Yoshida in view of Sariciftci and further in view of Parthasarathy (U.S. Patent No. 5,506,409, hereinafter referred to as "Parthasarathy"). Applicants traverse this rejection.

As discussed above, Applicants submit that the Examiner's alleged combination of Yoshida and Sariciftci is improper. In addition, even assuming *arguendo* that Yoshida and Sariciftci could be combined; the alleged combination is still deficient with regard to claims 1, 13 or 28.

On page 6 of the Office Action, the Examiner correctly recognizes that Yoshida in view of Sariciftci fails to teach or suggest any or all of the features set forth in claims 10 and 11. The Examiner relies upon Parthasarathy to allegedly teach these features.

However, even assuming *arguendo* that Yoshida, Sariciftci and/or Parthasarathy could be combined (which Applicants do not admit for at least reasons somewhat similar to those set forth above), the alleged combination of Yoshida, Sariciftci and/or Parthasarathy is still deficient with regard to claim 1. Thus, claims 10 and 11 are in condition for allowance.

Rejection under 35 U.S.C. §103(a)

Claims 14 and 27 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Yoshida in view of Sariciftci and further in view of

Possin et al. (U.S. Patent Publication No. 2003/0122083, hereinafter referred to as "Possin"). Applicants traverse this rejection.

As discussed above, Applicants submit that the Examiner's alleged combination of Yoshida and Sariciftci is improper. In addition, even assuming *arguendo* that Yoshida and Sariciftci could be combined; the alleged combination is still deficient with regard to claims 1, 13 or 28.

On page 7 of the Office Action, the Examiner correctly recognizes that Yoshida in view of Sariciftci fails to teach or suggest any or all of the features set forth in claims 14 and 27. The Examiner relies upon Possin to allegedly teach these features.

However, even assuming *arguendo* that Yoshida, Sariciftci and/or Possin could be combined (which Applicants do not admit for at least reasons somewhat similar to those set forth above), the alleged combination of Yoshida, Sariciftci and/or Possin is still deficient with regard to claim 13. Thus, claims 14 and 27 are in condition for allowance.

Rejection under 35 U.S.C. §103(a)

Claims 23 and 25 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Yoshida in view of Sariciftci, Feygin and further in view of Tyan. Applicants traverse this rejection.

As discussed above, Applicants submit that the Examiner's alleged combination of Yoshida and Sariciftci is improper. In addition, even assuming *arguendo* that Yoshida and Sariciftci could be combined; the alleged

combination is still deficient with regard to claims 1, 13 or 28. As further discussed above, Applicants submit that the Examiner's alleged combination of Yoshida, Sariciftci and/or Feygin is improper, and even assuming *arguendo* that Yoshida, Sariciftci and/or Feygin could be combined, the alleged combination is still deficient with regard to claims 1, 13 or 28.

On pages 7 and 8 of the Office Action, the Examiner correctly recognizes that Yoshida in view of Sariciftci and Feygin fails to teach or suggest any or all of the features set forth in claims 23 and 25. The Examiner relies upon Tyan to allegedly teach these features.

However, even assuming *arguendo* that Yoshida, Sariciftci, Feygin and/or Tyan could be combined (which Applicants do not admit for at least reasons somewhat similar to those set forth above), the alleged combination of is still deficient with regard to claim 1. Thus, claims 23 and 25 are in condition for allowance.

CONCLUSION

In view of above remarks, reconsideration of the outstanding rejection and allowance of the pending claims is respectfully requested.

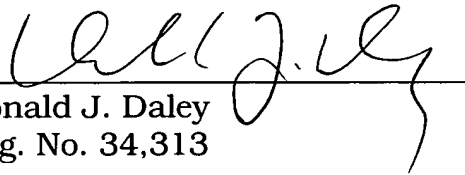
If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Andrew M. Waxman, Reg. No. 56,007, at the number of the undersigned listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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